

## ***FORECAST OF UPCOMING ANNIVERSARIES -- DECEMBER 2014***

### **65 Years Ago - 1949**

December 2: First firing of Aerobee research rocket, Holloman, AFB, NM.

### **60 Years Ago - 1954**

December 10: Col. John P. Stapp, USAF, attained speed of 632 mph on rocket sled sustaining greatest g-forces endured by man in recorded deceleration tests. Holloman AFB, NM.

During December - "Man In Space" produced by Walt Disney.

### **55 Years Ago - 1959**

December 4: Little Joe 2 launched around 12 noon, EST, with rhesus monkey "Sam", Wallops Flight Facility, (WFF).

### **50 Years Ago - 1964**

December 8: Little Joe II, A-002, Apollo development flight of Boilerplate 23, 8:00 a.m., MST, White Sands Missile Range, WSMR. First test of Apollo emergency detection system at abort altitude.

December 15: San Marco 1 launched by Scout from Wallops Island at 20:24 UTC.

December 21: Explorer 26 (EPE-D) launched by Delta rocket from Cape Canaveral at 09:00 UTC.

### **45 Years Ago - 1969**

December 29: NASA announced decision to close its Electronics Research Center (ERC) at Cambridge, Mass., due to budget cuts.

### **40 Years Ago - 1974**

December 2: Soyuz 16 launched by a Soyuz rocket. Test flight for upcoming ASTP. Crew: Anatoliy V. Filipchenko and Nikolai N. Rukavishnikov, 0940 UTC, Baikonur, USSR.

December. 4: Pioneer 11 Jupiter flyby. During its closest approach, Pioneer 11 passed to within 34,000 km of Jupiter's cloud tops.

December 10: Helios 1 launched by Titan IIIE to measure Sun's surface and solar wind, 2:11 a.m., EST, Cape Canaveral, Fla. First launch in joint project of the U.S. and West Germany.

December 18: Symphonie 1 launched by Delta, 9:30 p.m., EST, Cape Canaveral, Fla. Europe's first communications satellite.

December 26: Salyut 4 launched by Proton K, 0415 UTC, Baikonur, USSR.

### **35 Years Ago - 1979**

December 6: RCA 3 or RCA-SATCOM III launched by Delta, 8:35 p.m., EST, Cape Canaveral, Fla, satellite lost on December 10 during firing of Apogee Kick Motor.

December 24: First Ariane 1 launch from Kourou, French Guiana at 17:14:38 UTC. Launched Technological Capsule (CAT) 1, an ESA launch test vehicle.

### **30 Years Ago - 1984**

December 12: NOAA 9 launched by Atlas E, 5:42 a.m., EST, Vandenberg AFB.

December 15: Vega 1 launched by Proton K from Baikonur at 9:16:24 UTC (Soviet Venus/Comet Halley Mission -- also known as Venera-Halley 1) Estimated flyby distance of Halley at 10,000 km.

December 21: Vega 2 launched by Proton K from Baikonur at 9:13:52 UTC (Soviet Venus/Comet Halley Mission -- also known as Venera-Halley 2) Estimated flyby distance of Halley at 3,000 km.

December 27: Discovery in Antarctica of ALH 84001, the famous Mars meteorite that caused all of the excitement in 1996 about life possibly existing on Mars in the distant past.

### **25 Years Ago - 1989**

December 11: A GPS satellite, USA 49 (GPS 2 F5), fifth in series of Navstar Global Positioning System Block II spacecraft, launched by Delta from Cape Canaveral, Fla., at 1:10 p.m., EST.

### **20 Years Ago - 1994**

December 30: NOAA 14 launched by Atlas E from Vandenberg AFB at 10:02 UTC.

### **15 Years Ago - 1999**

December 10: XMM (X-ray Multimirror Mission) a European Space Agency (ESA) astronomy spacecraft (Europe's equivalent of Chandra & Hubble launched by Ariane 5 rocket from Kourou, French Guiana at 14:32 UTC. First launch of a functional spacecraft by the Ariane 5.

December 18: Terra, a joint U.S., Japan, and Canadian meteorological satellite designed to monitor clouds, aerosols, and solar radiation balance, was launched by an Atlas 2AS rocket from Vandenberg AFB at 19:00 UTC.

December 19: STS-103 (Space Shuttle *Discovery*) launched 7:50 p.m. EST, KSC. Astronauts Curtis L. Brown, Scott J. Kelly, Steven L. Smith, C. Michael Foale, John M. Grunsfeld, Claude Nicollier (Switzerland), and Jean-Francois Clervoy (France). Hubble Servicing Mission 3. First Space Shuttle crew to spend Christmas in space. The Hubble Space Telescope was released on Christmas day from *Discovery*'s cargo bay after the third servicing. Landed December 27, at 7:01 p.m. EST, KSC. Mission Duration: 7 days, 23 hours, 11 minutes.

December 21: ACRIMSAT launched by a Taurus rocket from Vandenberg AFB at 7:13 UTC to ascertain the extent of solar radiation variability.

### **10 Years Ago - 2004**

December 25: European Space Agency's (ESA) Huygens, an atmospheric probe, was released from the Cassini spacecraft that was orbiting around Saturn, towards its satellite, Titan at 03:24 UTC. Huygens probe reached the upper layer of Titan's atmosphere and landed on the surface on Jan. 14. 2005.

### **5 Years Ago - 2009**

December 14: Wide Field Infrared Survey Explorer (WISE), launched on a Delta 2 rocket from Vandenberg at 6:09 a.m. PST (9:09 a.m. EST). It will scan the entire sky in infrared light, picking up the glow of hundreds of millions of objects and producing millions of images. The mission will uncover objects never seen before, including the coolest stars, the universe's most luminous galaxies and some of the darkest near-Earth asteroids and comets.

December 20: Soyuz-TMA 17 launched by a Soyuz-FG rocket from Baikonur cosmodrome at 21:52 UTC or 4:51 EST to the International Space Station (ISS). Crew: a Russian cosmonaut (Oleg Kotov), a NASA astronaut (Timothy Creamer) and a Japanese astronaut (Soichi Noguchi).